Bhat, Narayan

From: Bhat, Narayan

Sent: Monday, May 24, 2010 3:31 PM

To: 'Yuhgo Maruta'

Cc: Kapushoc, Stephen T.

Subject: RE: 10/590,552 Proposed claim amendments

Mr. Maruta

Please note that you have authorized to correspond via e-mail on May 21, 2010, wherein you faxed the proposed amendments to claim 56 for discussion purpose only. I discussed the case with my mentor and proposed claim amendments listed below would place claim 56 in better condition for allowance.

Claim 56. A method of judging a biological activity in an environment contaminated with an organochlorine compound that is at least one of tetrachloroethylene (PCE) and trichloroethylene (TCE), the method comprising:

amplifying a nucleic acid extracted from an environmental sample by a gene amplification method so as to use the amplified product as a target; hybridizing the target to a DNA probe including a base sequence unique to each of 17 types of anaerobic bacteria denoted below as A to Q, which are related to degradation of the organochlorine compound, in an attempt to detect the 17 types of bacteria in the environment; and judging capability of the environment to eliminate the organochlorine compound based on degrading capability of the each of 17 types of bacteria that is detected with respect to the organochlorine compound and a dechlorinated product thereof, wherein the DNA probe is a combination of 87 types of DNA probes consisting of SEQ ID NOS: 19 to 105 or the complement of SEQ. ID NOS: 19-105, wherein each of the probe is bonded specifically to an internal transcribed spacer region of any one of the 17 types of bacteria denoted below as A to Q without occurrence of cross-hybridization, A: Dehalospirillum multivorans B: Desulfitobacterium frappieri C: Actinomycetales Sm- 1 (Rhodococcus sp. Sm- 1) D: Rhodococcus rhodococcus E: Xanthobacter flavus F: Mycobacterium L1G: Desulfomicrobium norvegicum (Desulfovibrio baculatus) H: Desulfitobacterium dehalogenans I: Desulfitobacterium hafniense J: Clostridium formicoaceticum K: Desulfuromonas chloroethenica L: Acetobacterium woodii DSM 1030 M: Dehalobacter restrictus N: Desulfitobacterium sp. strain PCE1 O: Desulfitobacterium frappieri TCE1 P: Acetobacterium woodii DSM 2396 Q: Desulfomonile tiediei DCB-1. Claims 59 and 60 -No change.

If Applicants are agreeable to the proposed amendments, please note that remaining claims 61-63, 66, 69 and 72 need to be cancelled either by you or authorizing the Examiner via Examiner's amendments.

You have a good day.

Narayan K. Bhat

Examiner, AU 1634 USPTO Rem 2D54 Alexandria, VA-22313 T: 571-272-5540 Fax: 571-273-5540

From: Yuhgo Maruta [mailto:ymaruta@hsml.com]

Sent: Monday, May 24, 2010 3:06 PM

To: Bhat, Narayan

Subject: RE: Are we linked?

Yes, thank you.

From: Bhat, Narayan [mailto:Narayan.Bhat@USPTO.GOV]

Sent: Monday, May 24, 2010 2:05 PM

To: Yuhgo Maruta **Subject:** Are we linked?

Narayan K. Bhat

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Fax: 571-273-5540